

Art. III.—THE COTTON CULTURE.

PHILADELPHIA, July 15th, 1846.

J. D. B. DE BOW, Esq., *Ed. Com. Review.*

SIR: Your circular, respecting the cultivation, etc., of Cotton, with your appended note of the 16th ult., reached me, at this place, on yesterday evening, after being received at and forwarded from my residence in Mississippi, and remaining here some time; and I now, with great pleasure, though in considerable haste, proceed to give you such views as I have upon some of the points noted in your circular.

I feel myself incapacitated, from three general causes, to make specific or useful replies to many of your inquiries. First, I am not as enterprising and inquisitive as a planter ought to be. Second, I am but comparatively a young planter; and thirdly, my operations have been confined exclusively to the rich Yazoo cotton land, and am entirely unacquainted with upland farming, where both the process and result is in many respects very different.

"The preparation of the ground for cotton," as well as the "time and mode of breaking up the soil," I look upon as matters of much greater importance than would appear from the practice of planters generally.

The land should be partially plowed into ridges, early in the season, say in the latter part of December or January, about four or five furrows thrown together, with a leading furrow run first, in which the ridge is commenced. (I am inclined to think, that it would be useful to run a subsoil furrow in the leading furrow before the ridge is commenced. I am trying this the present season, but have never known it done in bottom land.) The cotton-ridges thus partially made should remain until just before planting time; remarking, however, that the earlier this plowing is done, the larger those partial ridges should be made. Then, immediately before planting, let the middles be plowed out, covering up the old ridge, and raising it higher with new earth, and completely plowing out the middles. The course pursued by some persons, of leaving the middles until after planting time, is slovenly, and disadvantageous in many respects. Cotton ridges are seldom made high enough. I must remind you that I am speaking exclusively of bottom land. I do not know that this course would be best in upland.

Allow me, if you please, so to change your sixth interrogatory as to make it read, "time and mode of planting."

The proper time to plant cannot be correctly ascertained until it is past. So we must judge the best we can of the climate and season. Last spring we, almost all of us, found that we had planted too early. The seed sprouted and rotted, and we had to plant over. The rule is, to be ready in season, and wait for the weather. The man who is "not ready to plant" when it is time, unless he has met with some unforeseen casualty or impediment, is a slovenly planter, and will be behind his work all the year. I think men more frequently plant too early than too late.

The mode of planting is a matter of great importance, and is gen-

erally passed over too lightly. Let the ridges be high, smooth and clean, run a light harrow over them first, if necessary. Then open the ridge with a small instrument, making but a *mark* rather than *furrow*, and perfectly straight. In dropping the seed, let one-third more labor than usual be employed (it is but little at most and you are never then in a hurry), and using a small quantity of seed, one bushel or so to the acre, let them be placed *in the drill*—not spread over the ridge. Cover with a block (my mode of making which, I would take pleasure, some time, in describing). A crop thus planted has an advantage, besides the greater probability of getting a stand, over the mode frequently, I may say generally, pursued, fully equivalent to one-third of the labor of scraping and hilling the crop. This remark may seem bold, if not extravagant. But I am willing that the first class of planters shall note it, test it, and hold me responsible.

“*The number of acres to the hand.*” Where a crop is chiefly cotton and corn, on good bottom land, I think six acres of the former is about a full crop. This will make from six to nine bales to the hand—as much, generally more, than can be picked in good order. In this opinion you will find me, I presume, to differ from most men; but I think I am right, and would not hesitate, at a proper time, to attempt to defend my position.

Next you inquire after “*the kind of cotton seed preferred.*” Shortly after I commenced planting, twelve years ago, I commenced seeking after a *kind* of cotton better than that ordinarily planted. I tried all of fair promise I could find, and spent no little labor and expense in crossing, mixing and breeding the different kinds. At one time I had high hopes of a cross I had nearly perfected of the Egyptian cotton with the common Mexican. But about this time I fell in with the “*Mastodon*,” rather accidentally, as you may have learned. I thought well of it, and *took care of it*. That is all I am entitled to credit for, if for anything, respecting it. *I took care of it*, in its embryo and its infancy, until it became able to take care of itself. I need hardly tell you, that I consider this by far the best and most profitable cotton to raise; but I will add, that my opinion of its profitability has been universally strengthened by others, so far as I have heard any opinion expressed.

In regard to your ninth and tenth questions, I would remark, that the best, largest, and fullest grown seed should, most unquestionably, be planted, to the exclusion (as far as may be practicable) of the lesser or less perfectly grown seed. You will not always find these seeds in the same bolls. The last bolls that open, on the top of the stalk and ends of the limbs, furnish the poorest seed.

Immediately in this connection, and embracing the notion of the *depreciation*, or “*running off*” of cotton, is a question of great importance, and in regard to which there is a vast amount of popular error, and which error results in great disadvantage to the planter. My views on this point would be too lengthy to crowd into this hurried letter. I have frequently promised myself to give them to the public, in some agricultural channel, and will certainly take occasion to do so before long.

To “*preserve seed for planting*” they should be first thoroughly

and perfectly dried, and then kept well up from the ground, and dry.

I do not think it is a matter of much importance whether seed are planted "from the last crop" or with those "a year old," or more. Seed a year old are certainly as good as any, provided they have been saved and kept dry; and it is said that with those, some of the lesser and imperfect seed will not germinate. But this, however true it may be, is only a lazy mode of requiring nature to destroy one in twenty or a hundred of bad or refuse seed, when the whole or nearly all ought to have been destroyed by the farmer himself, by an easy and more certain process.

"Improvements resulting from change of seed, etc." It is a common remark among the planters that much benefit is to be derived by "changing seed," from one place to another, "from poor to rich land," "from north to south and the reverse." And I doubt not the fact of these beneficial results. Yet I am inclined to think the reason of them is, that sometimes good farmers, with good seed, are found in different neighborhoods—on poor and rich land—north, south, etc. I am inclined to the belief that this idea is related, in some degree of affinity, to the humbug of "gulf seed." I suppose that a similar *changing* of the cotton itself, of farming implements, teams, etc., would result beneficially to many persons. But then, it would be like the Irishman's distribution of property; in a few years they would have to "*change*" again.

I make my cotton rows about five feet apart, and leave the stalks about 24 to 30 inches in the drill. This, however, must vary with the land. No two pieces of land should have the same distance unless they are alike in soil and age. Different parts of the same plantation must vary in this respect, according to circumstances. Upon your seventeenth inquiry—"Mode of cultivation, kind of implements preferred," I should have to use as much room as this letter occupies, to give you my views with any reasonable satisfaction. The loss of labor by improper cultivation and the use of improper implements is, in my opinion, very great. I would take pleasure, at some proper time and place, in giving my opinions, in some detail, upon this important subject. At present, however, I can only say briefly, that my variation from the generality of planters in respect to the first branch of the inquiry is, that I first endeavor to have my cotton *well planted*. Now, referring back to what I said on this point a few minutes ago, at this precise point, both as to time and progress of the crop, I am a full week ahead of the man who has planted on a flat ridge, half made, with the seed sown broadcast upon it, and the middle not yet broke out. And this week's labor thus saved is *more valuable than any other six days in the whole year*. I now scrape, with a horse scraper, leaving the drill an inch wide. I suppose some farmers will smile at that remark, but I have written it, and still say, *about an inch wide*. And I not only write it upon paper, but my negroes write it much better than I do, in the cotton field. The hoe-hands then pass over it, one on a row, leaving two stands of cotton if it is very young, and a less quantity if it is older, removing all the grass and weeds, and disturbing the surface of the ground as little as possible, unless rains should have occasioned a crust.

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constantly moving to keep the cotton clean, and to keep the surface stirred. *It is less work, and does much more good, to work a crop twice over than once.*

"Rotation of crops" is most certainly advantageous.

The "*crab grass*" is the only grass that interferes with me much, and that only in or after a very wet spell of weather. I am inclined to think that where cotton is planted well and hilled early, a pretty free use of the cultivator and sweep will keep all grass and weeds pretty much out of the way, where a man has only a fair crop.

As to "*nursing*," it may be remarked generally that cotton is a very tender plant when young, and requires very careful treatment. And hence the necessity, as I have before insisted upon, of having a well-made ridge, with a smooth straight drill to commence with. Cotton should, in my opinion, be thinned early, say as soon as the second pair of new leaves begin to make their appearance, or before. Early scraping, early hilling, and early thinning, is my rule.

Cotton requires less *rain* than any other article we cultivate, that I now recollect of, though it frequently suffers for want of rain. It needs rain most in the early part of the season. In July a dry spell of weather occasions it to shed its forms, unless it is prevented by close and frequent cultivation. A dry fall is always the best for cotton.

The average picking to the hand varies very much according to the views of the planter, as regards the degree of cleanness with which he wishes it gathered. For my own part I prefer picking clean, or measurably so, and consequently do not pick so much as many others. I think when the picking is good, I generally make from 150 to 200 lbs. per day to the hand. Earlier or later in the season of course less. I have never used a *thrashing machine*, but am inclined to disapprove them. I think the best mode of clearing the cotton of trash, is first by picking pretty clean from the field, and then by thrashing it upon the scaffolds.

"*Is cotton best dried in the sun or shade?*" In reply to this inquiry I would say that it would, in my opinion, be unquestionably better to dry it in the shade if practicable, but I am not acquainted with any mode by which this could be conveniently done, especially when it requires much drying.

"*The most important qualities of a gin stand*" involve a great deal; and on the various points included in it, I have found it extremely difficult to form an opinion for myself, and I can only state some conclusions upon a few leading particulars.

In the first place, the *seed-board*, which forms the front side of the bed where the roll revolves, should be flat and perpendicular, instead of being rounded concave. The flat board, the edges below and above being in the same places, will of course lessen the size of the roll, and being so placed that a perpendicular line downward will just touch the circle of the cylinder, will throw the roll wholly *above* some part of the saws. In other words, the roll should be so confined as to lie *wholly on the saws*. *No part of the roll to be in front of the saws*. I am not certain what would be the best size for teeth, but prefer them fine. The relative *position* of the teeth with the grates, is regarded as more important. They should be so shaped as that the front edge

of the tooth should be precisely parallel with the face of the grates, so that the throat of the tooth will pass into the grates quite as soon as the point. If any difference, I would prefer that the throat would enter slightly in advance of the point. The brush is one of the most important things about a gin-stand. Its bristles should be very stiff—wings as numerous as practicable, so that it will have sufficient draft; and its motion as rapid as will be safe.

Messrs. Carver, Washburn & Co., of Mass., are now making a considerable number of gins, with the view of adapting them more particularly to the use of the *Mastodon cotton*. Some of them will be in Mississippi shortly. I expect to try one as soon as cotton opens, and very much hope they may succeed well. They will make the grates a little wider than usual. I am inclined to think that about seven-eighths or an inch wide will not be too wide.

Another very important quality in a gin-stand is, I think, that it gin slow, say one bale or a bale and a half per day. It would be folly in any man in this age of the world to attempt to speak of the capabilities of machinery, but my belief is, that at the present stage of mechanism in this particular, a gin-stand cannot be made, or never has been made, I had rather say, that will gin over one bale and a half or so per day, without injuring the cotton more than will be gained on the other hand by speed. I am a decided enemy to fast ginning. It belongs to the system of economy I spoke of a while ago. A gin-stand will suit me that will gin *one bale a day*.

THE PRESS. This is a matter of great importance to the planter, and very much neglected, in my humble opinion. The "*Newell screw*," large and hollow, is, in my estimation, the best press now in much use. I have thought, however, that one of the "*Bullock's patent*" (there are several of them) may be preferable, and I am still of that opinion, provided it can have a sufficient length of stroke. I met with Mr. B's agent the other day in Georgia putting up one, and it certainly looks well. I shall see the patentee, and examine his works, in New York, in a few days. I examined all the patent presses in the patent office, at Washington, the other day, that I considered worth examining, and saw nothing but Bullock's that attracted my attention. The common single wood screw (out door press), if well made, is a very powerful and pretty good machine. The objection to it is difficulty of access. I am now using one, and find no difficulty in pressing my bales, averaging about 420 lbs. to 22 inches square, when expanded out of the press.

You next ask the most important question as I conceive in your catalogue. "*Have you tested the iron hoops, and the pressing your bales into shipment size?*" I do not mean that it is important to know what my experience or opinions are. But I do regard the difference of sound truth and substantial information on this point, as matter of great importance to the cotton planting interests. *I have fully tested the iron hoops*, and feel well warranted in saying, that the advantage in using them over rope is very great, in many respects, and I am well persuaded that but two things prevent their going into general use very soon. First, the determined opposition of all the cotton interests in New Orleans and Mobile to the use of hoops, and

secondly, the want of substantial information among planters on the subject.

I cannot conveniently, at this time, go into an examination in detail, of the advantages of the use of iron hoops, but will state, briefly, *that it is no more labor or expense to the planter, to put his cotton in better shipping condition than it comes from the presses in New Orleans, than is now expended in putting up in the way it is generally done.* The whole expense of repressing, with all its necessarily attendant charges, may be saved without labor or expense; and not only so, but in doing which many other valuable advantages will be secured. These may seem bold expressions, but it is the easiest thing imaginable to place them all so far beyond the reach either of opposing argument or fact, that I presume neither will ever be attempted. And yet the State of Mississippi alone expends annually two hundred and fifty thousand dollars directly, and, I presume, not a less sum indirectly, in New Orleans, in preparing her cotton for transshipment.

At some other time I would be glad to give my views more at length on this important point, but you will excuse me at present, if I merely enumerate a few of the advantages of iron over rope, such as occur to me at present.

1st. The cost per bale of hoops and rope is about the same.

2d. It is a simple fact, that it is less labor to put on the iron than the rope, which the operation abundantly proves. A person, however, not acquainted with the most approved process, might probably labor to disadvantage.

3d. Cotton put up in hoops saves, provided the bale is of proper dimensions, the whole expense, direct and indirect, of compressing.

4th. It is *ready for shipment* at all times, and may frequently be upon the ocean, while otherwise, the vessel would be waiting for the presses.

5th. If generally adopted, both fire insurance and freight would be considerably lessened.

6th. Bales put in iron hoops are, or should be, of uniform size, and being very easily handled, the cotton can be received, sold and sent forward in *good order*. I am persuaded that great good would result from reform in this particular item.

7th. It would lessen the quantity of bagging about, or nearly, one-third.

I have never heard any *objection* to the use of iron hoops, that could not be very easily, and very certainly removed, to the entire satisfaction of any one. There is an error prevailing, I think, among planters, as to the power of a press necessary to make the bale small enough. Any good Newell screw, or any press of about that power, is sufficient to make a bale quite as small as they generally come from the New Orleans presses. I make my bales 4 feet 6 inches long and 22 inches square, weighing about 400 to 450 pounds, with a wood screw. I prefer bales of the average weight of about 400. Large bales belong to the *other class* of economy I spoke of.

It would require more room than I have this moment at my command, to explain my views in regard to the use of *cotton bagging*, instead of hemp. There are several important incidental advantages

that would grow out of the use of it, but there is no telling how low hemp bagging may be brought by competition, and it is an important question also, whether we cannot require our Kentucky neighbors to furnish us a much *better article* than the best we now get. This, at least, ought to be done. Nearly all the bagging now brought to the South, I regard as unfit for use. That is to say, it would be good economy in us to get a much better article than we now use.

Some of the latter questions in your circular, I see I have anticipated, and others I must omit, or at least defer.

I think I have some statistics at home in regard to *the expenses of selling cotton in New Orleans*, and may probably, at some future time, hand some over to you.

I was about closing, but see in your note accompanying the circular, you call my attention particularly to the MASTODON COTTON; also to *rust* in cotton, and to our *most destructive insects*.

There are few peculiarities, that I know of, belonging to the Mastodon cotton, so far as the mode of cultivation and preparing for market are concerned. I cultivate it, in all respects, as I would the common kind, except that I give it a little greater distance in the drill. In preparing it for market, however, I have no doubt, it will be found advantageous to put more labor upon it, and handle it neat and careful. For this extra labor, if we may so call it, I am satisfied it will pay much better than the common cotton. A man should have a small crop that he can cultivate well, and control easily. It should be picked as soon after opening as possible. Every time the sun shines or the dew or rain falls upon cotton in the field, it injures it. Let it be picked clean, and thrashed well upon the scaffold, and then, above all, let it be ginned without tearing it to pieces. Slow and handsome, and it will probably pay a man for his trouble.

I am frequently asked, "will it degenerate?" and the question is considered by many to be an important one. I do not consider this a *question* at all. It is a circumstance, and a very important one in regard to which an explanation may be necessary; and it seems very clear to me, that such explanation may be easily made, to the entire satisfaction of any man who ever saw cotton grow. I have already intimated that I would, before long, give my views on this subject.

As to *RUST*, we have none of it on the Yazoo bottoms that I know of, and I am unable to give any satisfactory views in regard to it.

The *INSECTS*, we are most troubled with, are the "*cotton lice*." They are becoming of late years, in many instances, very destructive. I think, however, they may be, in a good degree, prevented by quick and handsome *early cultivation*, and also by planting land that had been well cultivated the year previous. In regard to their *GENERATION*, I think my friend and neighbor, Dr. A. W. Washburn, is capable of giving some very useful and satisfactory information, and when I return home I will request him to place his views on the subject at the disposal of the public, either through your excellent periodical, or if more appropriate, perhaps, in a journal more exclusively agricultural. I could not procure them in time for the article in the Review you speak of.

I have thus, sir, in a very hurried and unconnected manner, given you some of my crude notions upon some of the most important

topics indicated in your circular. I regret that I did not receive this paper at home, when I could have given it more attention.

And will you allow me now, to remark, that I very highly approve of the course you have thought proper to pursue, in concentrating the opinions of planters on the very important subject of your circular. The diffusion of information of this sort, is greatly needed both in agricultural and commercial circles. Our great cotton interests are behind the times, and behind the age for the lack of enterprise. I sincerely hope, that you may see valuable results, both to the public and yourself, from your labors in this particular.

I think it quite probable, from your note, that you may not receive this in time to be of any use to you for the special purpose indicated, if it be thought useful at all. But I hold myself ever ready to perform any service which may promise the smallest benefit to the great interests of cotton growing; and therefore very cheerfully hand you this rough paper, desiring that you will make any use of it you may think proper.

With the best wishes for the success of the Review, and its enterprising Editor,

I am yours, very respectfully,
R. ABBEY.
